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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/613,074 | 07/07/2003 | Kazushi Tomita | F05-155619M/ARK | 8536 |

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|-----------------------|--------------|
| EXAMINER | |
| MCMAHON, MARGUERITE J | |
| ART UNIT | PAPER NUMBER |
| 3747 | |

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/613,074

Applicant(s)

TOMITA ET AL.

Examiner

Marguerite J. McMahon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,8-20,27,28,31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,8,9,11-20,27,28,31 and 32 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-5, 8-9, 11-20, 27-28, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muramatsu (6,695,658) in view of Yasui (6,598,595). Note a blowby gas circulation system for an engine including a crankcase and an intake system, comprising: an oil tank 14 for supplying engine oil reserved therein to said crankcase, said oil tank receiving a first gas-liquid mixture generated in said crankcase, and said oil tank separating said gas-liquid mixture into a second processed gas-liquid mixture and engine oil; a first breather chamber 24 for receiving said second processed gas-liquid mixture, said first breather chamber separating said processed gas-liquid mixture into a third gas-liquid mixture and engine oil, said first breather chamber returning said engine oil to said crankcase through drain 20, a second breather chamber 29 for receiving said third gas-liquid mixture, said second breather chamber separating said third gas-liquid mixture into blowby gas and engine oil, said second breather chamber sending said blowby gas to said intake system, and said second breather chamber returning said engine oil to the crankcase, a first oil [delivery] pump (not shown) for feeding engine oil reserved in said oil tank to said crankcase, and a second oil pump 292 for feeding said first gas-liquid mixture from said crankcase to said

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oil tank, wherein a pumping power of said second oil pump 292 is larger than a pumping power of said first oil [delivery] pump (see column 15, lines 4-7) so as to produce a vacuum pressure in said crankcase, as is conventional, and would be inherent, as a result of the different pumping powers of the two pumps.

Muramatsu shows everything except forming the crankcase by integrally connecting a first crankcase with a second crankcase, the first breather chamber being integrally formed with the crankcase, the first breather chamber thus returning engine oil directly to the crankcase, wherein the first breather chamber is formed by superimposing a first pocket integrally provided with a clutch cover on a second pocket integrally provided with said second crankcase when the clutch cover is connected with said second crankcase, and wherein the second breather chamber is integrally formed with the crankcase.

Yasui (6,598,585) teaches that it is old in the art to form the crankcase by integrally connecting a first crankcase 14L with a second crankcase 14R (see Figure 4), the first breather chamber 68 being integrally formed with the crankcase 14, the first breather chamber thus returning engine oil directly to the crankcase, wherein the first breather chamber is formed by superimposing a first pocket integrally provided with a clutch cover 58 on a second pocket integrally provided with said second crankcase when the clutch cover is connected with said second crankcase.

It would have been obvious to one of ordinary skill in the art to modify Muramatsu by forming the crankcase by integrally connecting a first crankcase with a second crankcase, since this is conventional, and is merely an art recognized alternative to the

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configuration utilized by Muramatsu (in which the crankcase is formed by an upper and lower portion), known for the same purpose.

Similarly, it would have been obvious to one of ordinary skill in the art to modify Muramatsu by locating the first breather chamber such that it is integrally formed with the crankcase, the first breather chamber thus returning engine oil directly to the crankcase, and wherein the first breather chamber is formed by superimposing a first pocket integrally provided with a clutch cover on a second pocket integrally provided with said second crankcase when the clutch cover is connected with said second crankcase, as this is merely another art recognized alternative to the configuration utilized by Muramatsu in which the first breather chamber is integrally formed with the oil reservoir. Both locations provide a compact configuration, which minimize the number of components of the blowby system.

With respect to claim 32, it would have been an obvious matter of design choice to form the second breather chamber integrally formed with the crankcase, as this is a well known and conventional location for a breather chamber, as shown by Yasui.

Allowable Subject Matter

Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 3 is allowed.

Response to Arguments

Applicant's arguments with respect to claims 1, 2, 4-5, 8-9, 11-20, 27-28, 31, and 32 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 5/10/05 have been fully considered but they are not persuasive. Applicant's remarks mainly concern the integral formation of the breather chamber(s) with the crankcase, which is addressed above by the new grounds of rejection.

In addition, Applicant argues that the Muramatsu reference (6,695,658) shows a second breather chamber 29, which includes a drain, which allows the liquid lubricant L to return to the induction system of the engine for combustion. This is clearly a mischaracterization of the Muramatsu reference, in which the second breather chamber 29 "includes a drain which allows the liquid lubricant L to return to the crankcase of the engine" (see column 2, lines 24-25).

Applicant also erroneously suggests that the location of the first breather chamber in Muramatsu is disadvantageous because Muramatsu must pump the oil, which is returned to the reservoir from the breather chamber, from the reservoir to the crankcase. It is noted that the instant invention must also pump the oil from the reservoir to the crankcase, utilizing pump 21.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the newly cited references of Marcil (6,431,157), Yoneyama et al (6,644,290), Moren (6,405,721), Ohtaka et al (4,667,647), and Sato et

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al (6,439,215), which all show breather chambers integrally formed with the crankcase and returning oil directly to the crankcase.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marguerite J. McMahon whose telephone number is 703-308-1956. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yuen Henry can be reached on 703-308-1946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


MARGUERITE MCMAHON
PRIMARY EXAMINER